

IN THE CLAIMS

1-39 (Canceled).

40. (Currently Amended) A kit comprising:

~~a compound as set forth in Claim 38; and~~

(a) a compound, comprising:

a recognition element capable of binding to a target biological agent and being selected from the group consisting of chemical ligand, xanthine, caffeine, theophylline, hormone, antibody, antibody fragment, oligonucleotide, antigen, polypeptide, glycolipid, protein, protein fragment, enzyme, peptide nucleic acid, and polysaccharide, and

a property-altering element selected from the group consisting of methyl viologen, quinine, metal complex, fluorescent dye, electron-accepting moiety, electron-donating moiety, and energy transferring moiety,

a tethering element connecting the recognition element and the property-altering element;

and

(b) a J-aggregate fluorescent polymer;

wherein the property-altering element is capable of amplified superquenching of the J-aggregate fluorescent polymer when associated therewith.

41. (Currently Amended) The kit of Claim 40, wherein the J-aggregate fluorescent polymer is cationic.

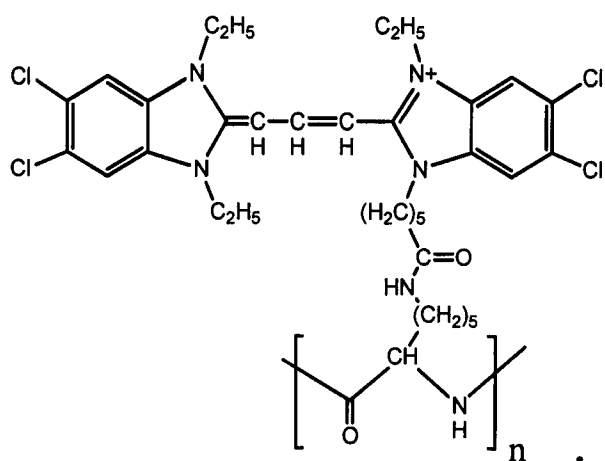
42. (New) The kit of claim 40, wherein the tethering element is selected from the group consisting of a single bond, a single divalent atom, a divalent chemical moiety up to 100 carbons in length, and a multivalent chemical moiety.

43. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer is affixed to a support.

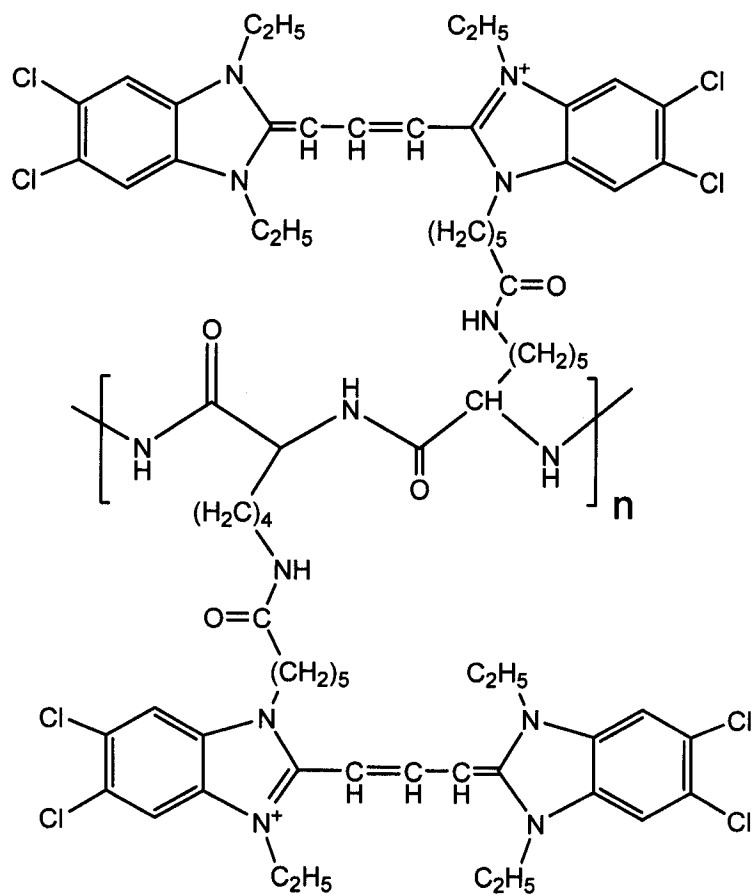
44. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer is bound to the peptide nucleic acid by a second tethering element.

45. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer comprises a plurality of fluorescent dyes in a J-aggregate, said dyes being selected from the group consisting of symmetrical cyanine dye chromophores, unsymmetrical cyanine dye chromophores, merocyanine dyes, positively charged dye chromophores, negatively charged dye chromophores, and neutral dye chromophores.

46. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer has a repeat unit of the following formula:

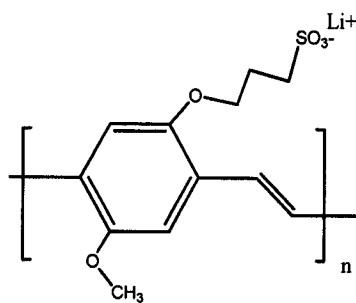


47. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer has a repeat unit of the following formula:



48. (New) The kit of claim 40, further comprising a second fluorescent polymer.

49. (New) The kit of claim 48, wherein the second fluorescent polymer has a repeat unit of the formula:



50. (New) The kit of claim 48, wherein the second fluorescent polymer is present in solution.

51. (New) The kit of claim 48, wherein the J-aggregate fluorescent polymer is affixed to a solid support and the second polymer is present in solution.

52. (New) The kit of claim 48, wherein the both the J-aggregate fluorescent polymer and the second fluorescent polymer are affixed to solid supports.

53. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer and the compound are contained in separate compartments with a separation therebetween, which may be removed by physical or chemical means.

54. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer is present in solution.

55. (New) The kit of claim 48, wherein the J-aggregate fluorescent polymer and the second fluorescent polymer are present in equimolar quantities.

56. (New) The kit of claim 48, wherein both the J-aggregate fluorescent polymer and the second fluorescent polymer are present in aqueous solution.

57. (New) The kit of claim 40, wherein the J-aggregate fluorescent polymer is a polyelectrolyte.

58. (New) The kit of claim 48, wherein both the J-aggregate fluorescent polymer and the second fluorescent polymer are polyelectrolytes.